

LD1-40-VH sequence

The full integrated model	
Model	1
Model	2
Model	3
Model	4
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Model	96
Model	97
Model	98
Model	99
Model	100

Fig. 1b

LD1-40-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGC	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	AGG	AGC	CAT	TTG	AAT	TGG	TAT	CAG	CAG	
	I	T	C	R	A	S	Q	S	I	R	S	H	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	TTG	CTG	ATC	TAT	GGT	GCG	TCC	ACT	TTG	CAA	AGT	
	K	P	G	K	A	P	K	L	L	I	Y	G	A	S	T	L	Q	S	
	GGC	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGC	TCT	GGG	GCA	GTT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	G	S	G	A	V	F	T	L	T	
	ATC	GCC	AGT	CTA	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	GAG	AGT	TAC	
	I	A	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	E	S	Y	
	AGT	AAT	CCT	CTA	ATC	ACC	TTC	GGC	CAA	GGG	ACA	CGA	CTG	GAG	ACT	AAA	3'		
	S	N	P	L	I	T	F	G	Q	G	T	R	L	E	T	K			
	← CDR3 →																		
	← CDR2 →																		

G6T2T0" Eth24T60

Fig. 2a

LD1-52-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	GCC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG	108
	R	L	S	C	E	A	S	G	F	A	L	R	S	S	G	M	H	W	
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D	
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R	
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC	270
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC	324
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y	
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1 ← →

CDR2 ← →

CDR3 ← →

09/147443-0124T60

09/147443

Fig. 2b

LD1-52-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AAC	ATT	ATC	CGC	TAT	TTA	AAT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	N	I	I	R	Y	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAG	CCA	GGG	AAA	GCC	CCT	AGG	CTC	CTG	ATC	TAT	GGT	GCG	TCC	ACT	TTG	CAA	AGT	162
	K	P	G	K	A	P	R	L	L	I	Y	G	A	S	T	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGT	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	← CDR3 →																		
	CGT	ACC	CCT	CCA	TTC	ACT	TTC	GGC	CCT	GGG	ACC	AAA	GTG	GAG	ATC	AAA		3'	
	R	T	P	P	F	T	F	G	P	G	T	K	V	E	I	K			

09147443-01

Fig. 3a

LD1-84-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	ACC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG	
	R	L	S	C	E	A	S	G	F	T	L	R	S	S	G	M	H	W	
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D	
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R	
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC	
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC	
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y	
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 99-108
 CDR2: 153-162
 CDR3: 351-360

09147443-012199

Fig. 3b

LD1-84-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	ATA	GGA	GAC	AGA	GTC	ACC
	V	M	T	Q	S	P	S	S	L	S	A	S	I	G	D	R	V	T
	ATC	ACC	TGC	CGG	GCA	AGT	CAG	AGT	ATC	ATC	AGG	TAT	TTG	AAT	TGG	TAT	CAG	CAC
	I	T	C	R	A	S	Q	S	I	I	R	Y	L	N	W	Y	Q	H
	← CDR1 →																	
	AAA	CCA	GGA	AAA	GCC	CCT	AAA	CTC	CTC	ATC	TTT	GCT	GCA	TCG	AAT	TTG	CAA	ACT
	K	P	G	K	A	P	K	L	L	I	F	A	A	S	N	L	Q	T
	GGG	GTC	CCA	TCC	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T
	ATC	AGT	GAC	CTG	CAG	CCT	GAG	GAT	TTC	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC
	I	S	D	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y
	AGT	AGG	CCG	TTC	ACT	TTT	GGC	CGG	GGG	ACC	AGC	CTG	GAC	ATC	AAA	3'		
	S	R	P	F	T	F	G	R	G	T	S	L	D	I	K			
	← CDR3 →																	

09/147443 014443

Fig. 4a

LD1-110-VH sequence

	9					18			27			36			45			54	
5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AGG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	R	S	L	
	63					72			81			90			99			108	
	AGA	CTC	TCC	TGT	ATA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AAT	TAT	GCC	ATG	CAC	TGG	
	R	L	S	C	I	A	S	G	F	T	L	R	N	Y	A	M	H	W	
	117					126			135			144			153			162	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	GGT	ATA	TGG	TTT	GAT	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	G	I	W	F	D	
	171					180			189			198			207			216	
	GGA	AGC	AAC	AAA	AAC	TAT	GCA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	
	G	S	N	K	N	Y	A	D	S	V	K	G	R	F	T	I	S	R	
	CDR2																		
	225					234			243			252			261			270	
	GAC	AAC	TCC	AAG	AAC	ACT	CTG	TTT	CTG	CAC	ATG	AAC	AGC	CTG	AGA	GCC	GAG	GAC	
	D	N	S	K	N	T	L	F	L	H	M	N	S	L	R	A	E	D	
	279					288			297			306			315			324	
	ACG	GCT	ACA	TAT	TAC	TGT	GCG	AGA	GAG	AGG	GCG	ATT	CGG	GGA	ATC	AGT	AGA	TAC	
	T	A	T	Y	Y	C	A	R	E	R	A	I	R	G	I	S	R	Y	
	333					342			351			360			369			378	
	AAT	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		
	CDR3																		

66T2T0" CH44T60

09/147443

Fig. 4b

LD1-110-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	CGA	AGC	TCT	TTA	AAT	TGG	TAT	CAG	CAG
	I	T	C	R	A	S	Q	S	I	R	S	S	L	N	W	Y	Q	Q
	AAA	CCA	GGG	AAA	GCC	CCT	AAA	GTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT
	K	P	G	K	A	P	K	V	L	I	Y	A	A	S	S	L	Q	S
	GGG	GTC	CCA	TCC	AGG	TTC	AGT	GGC	AGA	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC
	G	V	P	S	R	F	S	G	R	G	S	G	T	D	F	T	L	T
	ATC	AGC	AGT	CTG	CAG	CCT	GAA	GAT	TTT	GCG	ACT	TAT	TAT	TGT	CAA	CAG	AGT	TCC
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	S
	AGT	TCC	TCG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'		
	S	S	S	W	T	F	G	Q	G	T	K	V	E	I	K			

CDR1: 117-126 (AAA CCA GGG AAA GCC CCT AAA GTC)
 CDR2: 198-207 (GGG ACA GAT TTC ACT CTC)
 CDR3: 279-288 (AGT TCC TCG TGG ACG TTC GGC CAA)

09/147443 "CH42T60"

Fig. 5a

LD1-117-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCA	GGA	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AAG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	K	S	L	
	AGA	CTT	TCC	TGT	GCA	GCG	TCT	GGA	TTC	AGT	TTC	AAT	AGC	CAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	A	A	S	G	F	S	F	N	S	H	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGC	AGT	AAT	AAA	TAC	TAT	GCA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	ACC	AGA	216
	G	S	N	K	Y	Y	A	D	S	V	K	G	R	F	T	I	T	R	
	GAC	AAC	TCC	AAG	AAC	ACG	CTG	TAT	CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAG	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	N	S	L	R	A	E	D	
	ACG	GCT	GTC	TAT	TAC	TGT	GCG	AGA	GAG	ACC	TCA	GTA	AGG	CTA	GGG	TAT	AGC	CGC	324
	T	A	V	Y	Y	C	A	R	E	T	S	V	R	L	G	Y	S	R	
	TAC	AAT	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	ATC	TCG	TCA	378
	Y	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	I	S	S	3'

CDR1: 153-162
 CDR2: 171-216
 CDR3: 333-378

09/147443

LD1-117-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	AGG	AGC	CAT	TTG	AAT	TGG	TAT	CAG	CAG
	I	T	C	R	A	S	Q	S	I	R	S	H	L	N	W	Y	Q	Q
	<div style="text-align: center;"> ← CDR1 → </div>																	
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	GGT
	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	S	L	Q	G
	<div style="text-align: center;"> ← CDR2 → </div>																	
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAT	TAC	TGT	CAA	CAG	AGT	TAC
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y
	<div style="text-align: center;"> ← CDR3 → </div>																	
	AGG	GCC	CCT	CAG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'	
	R	A	P	Q	W	T	F	G	Q	G	T	K	V	E	I	K		

Table 1. Demographic characteristics of the study population	
Age (years)	65.0 ± 10.0
Gender	
Male	50 (50.0%)
Female	50 (50.0%)
Education (years)	12.0 ± 2.0
Marital status	
Married	40 (80.0%)
Single	10 (20.0%)
Occupation	
Retired	30 (60.0%)
Unemployed	10 (20.0%)
Employed	10 (20.0%)
Income (USD/month)	1,000.0 ± 200.0
Health status	
Good	30 (60.0%)
Fair	10 (20.0%)
Poor	10 (20.0%)
Comorbidities	
Hypertension	20 (40.0%)
Diabetes	10 (20.0%)
Cholesterol	10 (20.0%)
Arthritis	10 (20.0%)
Smoking status	
Smoker	10 (20.0%)
Non-smoker	40 (80.0%)
Alcohol consumption	
Regular	10 (20.0%)
Occasional	10 (20.0%)
Never	30 (60.0%)

09/147443

Fig. 6a

LD2-1-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	L	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ATG	GTC	TAT	CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAT	GAC	270
	D	N	S	K	N	M	V	Y	L	Q	M	N	S	L	R	A	D	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGC	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y	
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S		

← CDR1 →

← CDR2 →

CDR2 →

← CDR3 →

← CDR3 →

667220" E4424150

Fig. 6b

LD2-1-VL sequence

5'	GTG	GTG	ACT	CAG	CCA	CCC	TCA	GCG	TCT	GGG	ACC	CCC	GGA	CAG	AGG	GTC	ACC	ATC
	V	V	T	Q	P	P	S	A	S	G	T	P	G	Q	R	V	T	I
	TCT	TGT	TCT	GGA	AGC	AAC	TCC	ATC	CTT	GGA	AGT	AAG	TAT	GTA	TAC	TGG	TAC	CAG
	S	C	S	G	S	N	S	I	L	G	S	K	Y	V	Y	W	Y	Q
	← CDR1 →																	
	AAA	CTC	CCA	GGA	ACG	GCC	CCC	AAA	CTC	CTC	ATC	TAT	AAG	AAT	GAT	CAG	CGG	CCC
	K	L	P	G	T	A	P	K	L	L	I	Y	K	N	D	Q	R	P
	← CDR2 →																	
	TCA	GGG	GTC	TCT	GAC	CGA	TTC	TCT	GGC	TCC	AAG	TCT	GGC	ACC	TCG	GCC	TCC	CTG
	S	G	V	S	D	R	F	S	G	S	K	S	G	T	S	A	S	L
→	GCC	ATC	AGT	GGG	CTC	CGG	TCC	GAG	GAT	GAG	GCT	GAC	TAT	TAC	TGT	GCA	CCA	TGG
	A	I	S	G	L	R	S	E	D	E	A	D	Y	Y	C	A	P	W
	GAT	GCC	AAC	CTG	GGT	GGC	CCG	GTG	TTC	GGC	GGA	GGG	ACC	AAG	CTG	ACC	GTC	CTA
	D	A	N	L	G	G	P	V	F	G	G	G	T	K	L	T	V	L
	← CDR3 →																	
	AGT	CAG	CCC	3'														
	S	Q	P															

09/147443

Fig. 7a

LD2-4-VH sequence

5'			9			18			27			36			45			54
	CAG	GTG	AAA	CTG	CTC	GAG	TCG	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L
			63			72			81			90			99			108
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	ACC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG
	R	L	S	C	E	A	S	G	F	T	L	R	S	S	G	M	H	W
			117			126			135			144			153			162
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D
			171			180			189			198			207			216
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R
			225			234			243			252			261			270
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D
			279			288			297			306			315			324
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y
			333			342			351			360			369			
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S	

557270" CH424T60

Fig. 7b

LD2-4-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	ACA	AGT	CAG	ACC	ATT	AGC	AGA	AAT	TTA	AAT	TGG	TAT	CAG	CAG	
	I	T	C	R	T	S	Q	T	I	S	R	N	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	ACA	TCC	AGT	TTG	CAA	AGT	
	K	P	G	K	A	P	K	L	L	I	Y	A	T	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AAT	AGT	CTA	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	N	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	ACT	ACC	CCT	TCG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'	← CDR3 →			
	T	T	P	S	F	G	Q	G	T	K	V	E	I	K					

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Fig. 8a

LD2-5-VH sequence

5'	9		18		27		36		45		54							
	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	TTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG
	Q	V	K	L	L	E	S	G	G	G	L	V	Q	P	G	G	S	L
	63		72		81		90		99		108							
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG
	R	L	S	C	V	A	S	G	F	T	F	R	S	Y	G	M	H	W
	117		126		135		144		153		162							
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D
	171		180		189		198		207		216							
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R
	CDR2																	
	225		234		243		252		261		270							
	GAC	AAT	TCC	AAG	AAC	ATG	CTC	TAT	CTG	CAA	ATG	AAT	AGC	CTG	AGA	GCC	GAG	GAC
	D	N	S	K	N	M	L	Y	L	Q	M	N	S	L	R	A	E	D
	279		288		297		306		315		324							
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGT	AGA	TAC
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y
	CDR3																	
	333		342		351		360		369		378							
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	GCC	ACG	GTC	ACC	GTC	TCC	TCA	3'
	N	Y	Y	L	D	V	W	G	K	G	A	T	V	T	V	S	S	
	CDR3																	

09/147443"CTGCTG

Fig. 8b

LD2-5-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	ATA	GGC	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	I	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	GTT	ACC	AGG	TCT	TTA	AAT	TGG	TAT	CAG	CAG	
	I	T	C	R	A	S	Q	S	V	T	R	S	L	N	W	Y	Q	Q	
	AAA	CCA	GGG	AAA	GCC	CCT	AGG	CTC	CTA	ATC	TTT	GCT	GCG	TCC	ACT	TTG	CAA	AGT	
	K	P	G	K	A	P	R	L	L	I	F	A	A	S	T	L	Q	S	
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACC	CTC	ACC	
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAG	GAT	TTT	GGA	ACT	TAC	TAC	TGT	CAA	CAG	AAT	TAC	
	I	S	S	L	Q	P	E	D	F	G	T	Y	Y	C	Q	Q	N	Y	
	AGG	ACC	CCT	CAG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTA	GAA	ATC	AAA			
	R	T	P	Q	W	T	F	G	Q	G	T	K	V	E	I	K			

CDR1 →

CDR2 →

CDR3 →

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Fig. 9a

LD2-10-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	CTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	L	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ATG	GTC	TAT	CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAT	GAC	270
	D	N	S	K	N	M	V	Y	L	Q	M	N	S	L	R	A	D	D	
	ACG	GCT	GTA	TAT	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGC	AGA	324
	T	A	V	Y	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	
	TAC	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	378
	Y	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S	3'

CDR1: 99-108 (GGC ATG CAC TGG)

CDR2: 144-162 (GCT TTT ATA TGG TTT GAT)

CDR3: 333-342 (TAT TAC CTG GAC)

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LD2-10-VL sequence

5'	GTG	GTG	ACT	CAG	GAG	CCC	TCA	CTG	ACT	GTG	TCC	CCA	GGA	GGG	ACA	GTC	ACT	CTC
	V	V	T	Q	E	P	S	L	T	V	S	P	G	G	T	V	T	L
	ACC	TGT	GCT	TCC	AGC	ACT	GGG	GCA	GTC	ACC	AGG	GGT	TAC	TAT	CCA	AAC	TGG	TTC
	T	C	A	S	S	T	G	A	V	T	R	G	Y	Y	P	N	W	F
	← CDR1 →																	
	CAG	CAG	AAG	CCT	GGA	CAA	GCA	CCC	AGG	GCA	CTG	ATT	TAT	AGT	ACA	AAC	AAA	AAA
	Q	Q	K	P	G	Q	A	P	R	A	L	I	Y	S	T	N	K	K
	← CDR2 →																	
	CAC	TCC	TGG	ACC	CCT	GCC	CGG	TTC	TCA	GGC	TCC	CTC	CTT	GGG	GGC	AAA	GCT	GCC
	H	S	W	T	P	A	R	F	S	G	S	L	L	G	G	K	A	A
	→																	
	CTG	ACA	CTG	TCA	GGT	GTG	CAG	CCT	GAA	GAC	GAG	GCT	GAA	TAT	TAC	TGC	CTG	CTC
	L	T	L	S	G	V	Q	P	E	D	E	A	E	Y	Y	C	L	L
	←																	
	TAC	TAT	GGT	GGT	GCT	CAA	CTC	GTA	TTC	GGC	GGA	GGG	ACC	AAG	CTG	ACC	GTC	CTA
	Y	Y	G	G	A	Q	L	V	F	G	G	G	T	K	L	T	V	L
	→ CDR3 →																	
	CGT	CAG	CCC	3'														
	R	Q	P															

Table 1. Demographic characteristics of the study population	
Age (years)	Mean (SD)
Male	65.2 (10.5)
Female	68.5 (11.2)
Education (years)	Mean (SD)
Male	12.5 (2.1)
Female	13.2 (2.3)
Marital status	
Married	78%
Single	22%
Occupation	
Professional	35%
Managerial	25%
Skilled	20%
Unskilled	20%
Retired	10%
Income (USD/month)	Mean (SD)
Male	1,200 (300)
Female	1,100 (250)
Health insurance	
Yes	85%
No	15%
Comorbidities	
Hypertension	45%
Diabetes	30%
Cholesterol	25%
Smoking status	
Current	15%
Former	35%
Never	50%
Alcohol consumption	
Regular	10%
Occasional	20%
Never	70%

Fig. 10a

LD2-11-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCG	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GAA	GCG	TCT	GGA	TTC	ACC	CTC	AGA	AGT	TCT	GGC	ATG	CAC	TGG	108
	R	L	S	C	E	A	S	G	F	T	L	R	S	S	G	M	H	W	
	GTC	CGC	CAG	GCT	CCT	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	CTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	L	I	W	F	D	
	GGA	AGT	ATC	AGA	TCG	TAT	GCA	GAA	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	S	I	R	S	Y	A	E	S	V	K	G	R	F	T	I	S	R	
	GAC	ACT	TCC	AAG	AAC	ACC	CTA	TAT	CTC	CAA	ATG	CGC	AGT	CTG	AGT	GCC	GAC	GAC	270
	D	T	S	K	N	T	L	Y	L	Q	M	R	S	L	S	A	D	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAC	AAG	GCG	GTT	CGG	GGA	ATT	AGC	AGG	TAC	324
	T	A	V	Y	Y	C	A	R	D	K	A	V	R	G	I	S	R	Y	
	AAC	TAT	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 90-99
 CDR2: 117-126, 135-144, 153-162
 CDR3: 333-342, 351-360, 369

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Fig. 10b

LD2-11-VL sequence

5'	GTG	TTG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	ATA	CGA	GAC	AGA	GTC	ACC	54
	V	L	T	Q	S	P	S	S	L	S	A	S	I	R	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AAC	ATT	GGC	AGT	TAT	TTA	AAT	TGG	TAT	CAG	CAC	108
	I	T	C	R	A	S	Q	N	I	G	S	Y	L	N	W	Y	Q	H	
	← CDR1 →																		
	AAA	CCA	GGG	ACA	GCC	CCT	AAA	CTC	CTG	ATC	TAT	GCT	GTA	TCC	GCT	TTG	CAA	AGT	162
	K	P	G	T	A	P	K	L	L	I	Y	A	V	S	A	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCG	AGG	TTC	AGT	GGC	AGT	AGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	R	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	← CDR3 →																		
	AGT	CCC	CCG	TAC	ACT	TTC	GGC	CAG	GGG	ACC	AAC	CTG	CAG	ATC	AAA	3'			
	S	P	P	Y	T	F	G	Q	G	T	N	L	Q	I	K				

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Fig. 11a

LD2-14-VH sequence

5'		9		18		27		36		45		54							
	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
		63		72		81		90		99		108							
	AGA	GTC	GCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AAT	TTT	GGC	ATG	CAC	TGG	
	R	V	A	C	V	A	S	G	F	T	F	R	N	F	G	M	H	W	
		117		126		135		144		153		162							
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCT	TTT	ATT	TGG	TTT	GAT	
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
		171		180		189		198		207		216							
	GCA	AGT	AAT	AAA	GGA	TAT	GGA	GAC	TCC	GTT	AAG	GGC	CGA	TTC	ACC	GTC	TCC	AGA	
	A	S	N	K	G	Y	G	D	S	V	K	G	R	F	T	V	S	R	
		225		234		243		252		261		270							
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAC	GGC	CTG	AGA	GCC	GAA	GAC	
	D	N	S	K	N	T	L	Y	L	Q	M	N	G	L	R	A	E	D	
		279		288		297		306		315		324							
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	GTT	CGG	GGA	ATT	AGT	AGA	TAC	
	T	A	V	Y	Y	C	A	R	E	K	A	V	R	G	I	S	R	Y	
		333		342		351		360		369									
	AAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

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Fig. 11b

LD2-14-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTG	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	ATC	AAC	AAT	TTA	AAT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	S	I	I	N	N	L	N	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGC	AAA	GCC	CCT	GAA	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT	162
	K	P	G	K	A	P	E	L	L	I	Y	A	A	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCT	TCA	AGG	TTC	CGT	GGC	AGT	GGA	TCT	GGG	AGA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	R	G	S	G	S	G	R	D	F	T	L	T	
	GTC	ACC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	V	T	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	← CDR3 →																		
	AGT	ACC	CTG	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	3'			
	S	T	L	W	T	F	G	Q	G	T	K	V	E	I	K				

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Fig. 12a

LD2-17-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	F	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAG	AGC	CTG	AGA	GCC	GAG	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	K	S	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGT	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y	
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 99-108
CDR2: 153-162
CDR3: 351-360

09147443

Fig. 12b

LD2-17-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TTC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	F	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AAC	ATT	AGG	AGT	TTT	TTA	AGT	TGG	TAT	CAG	CAG	108
	I	T	C	R	A	S	Q	N	I	R	S	F	L	S	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	ACA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGG	TTG	CAA	AGT	162
	K	P	G	T	A	P	K	L	L	I	Y	A	A	S	R	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGG	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	ACT	CTG	CAA	CCT	GAA	GAT	TTT	GCG	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	270
	I	S	T	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	AGT	GCC	CCT	TGG	ACG	TTC	GGC	CAA	GGG	ACC	AAG	CTG	GAA	ATC	AAA	3'			
	S	A	P	W	T	F	G	Q	G	T	K	L	E	I	K				
	← CDR3 →																		

09147443-012169

Fig. 13a

LD2-20-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	CTC	TCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TCC	AGG	AGT	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	V	A	S	G	F	T	S	R	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGC	CTG	GAG	TGG	GTG	GCT	TTT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GGA	AGT	AAT	AAA	GGA	TAT	GTA	GAC	TCC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	CGA	216
	G	S	N	K	G	Y	V	D	S	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAG	AGC	CTG	AGA	GCC	GAG	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	K	S	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	CTT	CGG	GGA	ATC	AGT	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	L	R	G	I	S	R	Y	
	AAC	TAT	TAC	CTG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	L	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1 →

CDR2 →

CDR3 →

09147443-02199

Fig. 13b

LD2-20-VL sequence

5'	9			18			27			36			45			54		
	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
	63			72			81			90			99			108		
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	AGC	AGC	TAT	TTA	AAT	TGG	TAT	CAG	CAG
	I	T	C	R	A	S	Q	S	I	S	S	Y	L	N	W	Y	Q	Q
	← CDR1 →																	
	117			126			135			144			153			162		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT
	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	S	L	Q	S
	← CDR2 →																	
	171			180			189			198			207			216		
	GGG	GTC	CCA	TCA	AGG	TTC	AGT	GGC	AGT	GGA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T
	225			234			243			252			261			270		
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y
	← CDR3 →																	
	279			288			297			306			315			3'		
	AGT	ACC	CGA	TTC	ACT	TTC	GGC	CCT	GGG	ACC	AAA	GTG	GAT	ATC	AAA			
	S	T	R	F	T	F	G	P	G	T	K	V	D	I	K			

55T2T0" CH424T60

Fig. 14a

LD1-6-17-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCT	GGG	AGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	R	S	L	
	AGA	CTT	TCC	TGT	GCA	GCG	TCT	GGA	TTT	ACC	TTC	AGT	AGC	TAT	GGC	ATG	CAC	TGG	108
	R	L	S	C	A	A	S	G	F	T	F	S	S	Y	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCA	GAT	ATA	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	D	I	W	F	D	
	GGA	GGT	AAT	AAA	CAT	TAT	GCA	GAC	TTC	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	216
	G	G	N	K	H	Y	A	D	F	V	K	G	R	F	T	I	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	GTG	TAT	CTA	CAA	ATG	AAC	AGC	CTG	AGA	GTC	GAG	GAC	270
	D	N	S	K	N	T	V	Y	L	Q	M	N	S	L	R	V	E	D	
	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGG	GAT	TAC	TAT	AGC	GTT	ACT	AAG	AAA	CTC	AGA	324
	T	A	V	Y	Y	C	A	R	D	Y	Y	S	V	T	K	K	L	R	
	CTC	CAC	TAC	TAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAA	GGG	ACC	ACG	GTC	ACC	GTC	378
	L	H	Y	Y	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	
	TCC	TCA	3'																
	S	S																	

667270" CH44460

Fig. 14b

LD1-6-17-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	54
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	GGC	ATT	AGA	AAT	GAT	TTA	ACC	TGG	TAT	CAG	CAA	108
	I	T	C	R	A	S	Q	G	I	R	N	D	L	T	W	Y	Q	Q	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	TAT	GCT	GCA	TCC	AAT	TTA	CAA	AGT	162
	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	N	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCA	TCA	AGG	TTC	AGC	GGC	AGT	GGA	TCT	GGC	ACA	GAT	TTC	ACT	CTC	ACC	216
	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	
	ATC	AGC	AGC	CTG	CAG	CCT	GAA	GAT	TTT	GCA	ACT	TAT	TAC	TGT	CTA	CAA	GAT	AAC	270
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	L	Q	D	N	
	← CDR3 →																		
	AAT	TTC	CCG	TAC	ACT	TTT	GGC	CAG	GGG	ACC	AAG	CTG	GAG	ATC	AAA	3'			
	N	F	P	Y	T	F	G	Q	G	T	K	L	E	I	K				

09147443-0147443

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Fig. 15a

LD1/2-6-3-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L
	AGA	GTC	GCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AAT	TTT	GGC	ATG	CAC	TGG
	R	V	A	C	V	A	S	G	F	T	F	R	N	F	G	M	H	W
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCT	TTT	ATT	TGG	TTT	GAT
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D
	GCA	AGT	AAT	AAA	GGA	TAT	GGA	GAC	TCC	GTT	AAG	GGC	CGA	TTC	ACC	GTC	TCC	AGA
	A	S	N	K	G	Y	G	D	S	V	K	G	R	F	T	V	S	R
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAC	GGC	CTG	AGA	GCC	GAA	GAC
	D	N	S	K	N	T	L	Y	L	Q	M	N	G	L	R	A	E	D
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	GTT	CGG	GGA	ATT	AGT	AGA	TAC
	T	A	V	Y	Y	C	A	R	E	K	A	V	R	G	I	S	R	Y
	AAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S	

CDR1: 99-108
 CDR2: 153-162
 CDR3: 333-342

09147443-012166

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Fig. 15b

LD1/2-6-3-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TCC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	ATC	AGA	TAT	TTA	AAT	TGG	TAT	CAG	CAC	
	I	T	C	R	A	S	Q	S	I	I	R	Y	L	N	W	Y	Q	H	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	CAT	ACT	GCA	TCC	AGT	TTG	CAA	AGT	
	K	P	G	K	A	P	K	L	L	I	H	T	A	S	S	L	Q	S	
	← CDR2 →																		
	GGG	GTC	CCG	TCA	AGG	TTC	AGT	GGC	AGT	GTA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	V	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	ACT	ACC	CCG	TAC	ACT	TTT	GGC	CAG	GGG	ACC	AAG	CTG	CAG	ATC	AAA	3'			
	T	T	P	Y	T	F	G	Q	G	T	K	L	Q	I	K				
	← CDR3 →																		

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Fig. 16a

LD1/2-6-33-VH sequence

5'	CAG	GTG	AAA	CTG	CTC	GAG	TCT	GGG	GGA	GGC	GTG	GTC	CAG	CCG	GGG	GGG	TCC	CTG	54
	Q	V	K	L	L	E	S	G	G	G	V	V	Q	P	G	G	S	L	
	AGA	GTC	GCC	TGT	GTA	GCG	TCT	GGA	TTC	ACC	TTC	AGG	AAT	TTT	GGC	ATG	CAC	TGG	108
	R	V	A	C	V	A	S	G	F	T	F	R	N	F	G	M	H	W	
	GTC	CGC	CAG	GCT	CCA	GGC	AAG	GGG	CTG	GAG	TGG	GTG	GCT	TTT	ATT	TGG	TTT	GAT	162
	V	R	Q	A	P	G	K	G	L	E	W	V	A	F	I	W	F	D	
	GCA	AGT	AAT	AAA	GGA	TAT	GGA	GAC	TCC	GTT	AAG	GGC	CGA	TTC	ACC	GTC	TCC	AGA	216
	A	S	N	K	G	Y	G	D	S	V	K	G	R	F	T	V	S	R	
	GAC	AAT	TCC	AAG	AAC	ACG	CTC	TAT	CTG	CAA	ATG	AAC	GGC	CTG	AGA	GCC	GAA	GAC	270
	D	N	S	K	N	T	L	Y	L	Q	M	N	G	L	R	A	E	D	
	ACG	GCT	GTA	TAT	TAT	TGT	GCG	AGA	GAG	AAG	GCG	GTT	CGG	GGA	ATT	AGT	AGA	TAC	324
	T	A	V	Y	Y	C	A	R	E	K	A	V	R	G	I	S	R	Y	
	AAC	TAC	TAC	ATG	GAC	GTC	TGG	GGC	AAG	GGG	ACC	ACG	GTC	ACC	GTC	TCC	TCA	3'	
	N	Y	Y	M	D	V	W	G	K	G	T	T	V	T	V	S	S		

CDR1: 99-108
 CDR2: 153-162
 CDR3: 333-342

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Fig. 16b

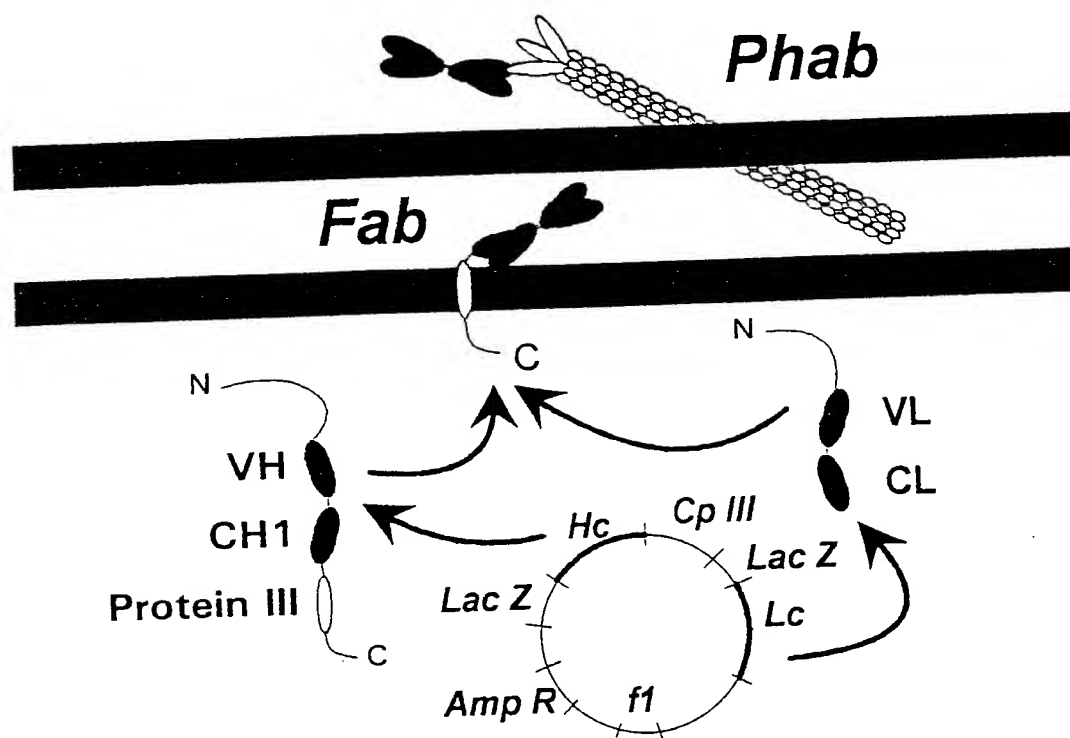
LD1/2-6-33-VL sequence

5'	GTG	ATG	ACC	CAG	TCT	CCA	TCC	TTC	CTG	TCT	GCA	TCT	GTA	GGA	GAC	AGA	GTC	ACC	
	V	M	T	Q	S	P	S	F	L	S	A	S	V	G	D	R	V	T	
	ATC	ACT	TGC	CGG	GCA	AGT	CAG	AGC	ATT	ATC	AGA	TAT	TTA	AAT	TGG	TAT	CAG	CAC	
	I	T	C	R	A	S	Q	S	I	I	R	Y	L	N	W	Y	Q	H	
	← CDR1 →																		
	AAA	CCA	GGG	AAA	GCC	CCT	AAG	CTC	CTG	ATC	CAT	GCT	GCA	TCC	AGT	TTG	CAA	AGT	
	K	P	G	K	A	P	K	L	L	I	H	A	A	S	S	L	Q	S	
	GGG	GTC	CCG	TCA	AGG	TTC	AGT	GGC	AGT	GTA	TCT	GGG	ACA	GAT	TTC	ACT	CTC	ACC	
	G	V	P	S	R	F	S	G	S	V	S	G	T	D	F	T	L	T	
	ATC	AGC	AGT	CTG	CAA	CCT	GAA	GAT	TTT	GCA	ACT	TAC	TAC	TGT	CAA	CAG	AGT	TAC	
	I	S	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	Y	
	ACT	ACC	CCG	TAC	ACT	TTT	GGC	CAG	GGG	ACC	AAG	CTG	CAG	ATC	AAA	3'			
	T	T	P	Y	T	F	G	Q	G	T	K	L	Q	I	K				
	← CDR3 →																		

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Fig. 17

The pComb3 Expression System



567210" E4424760

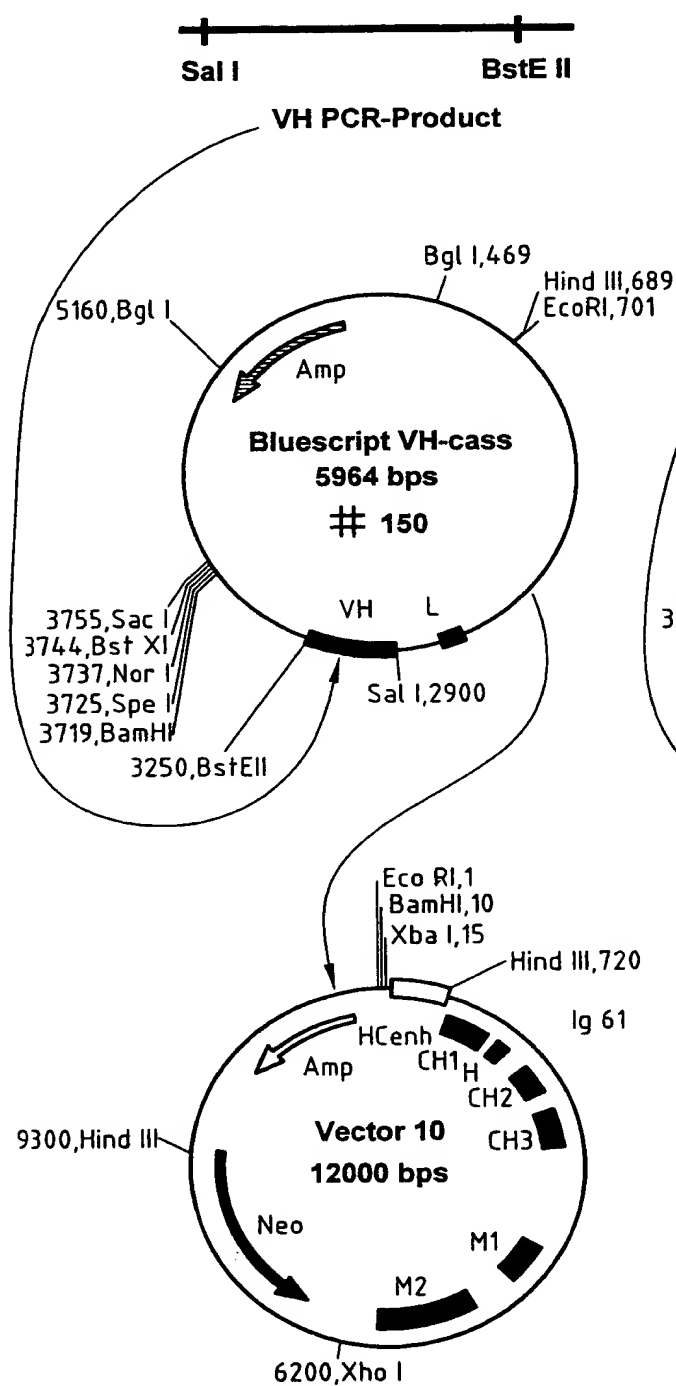


FIG. 18

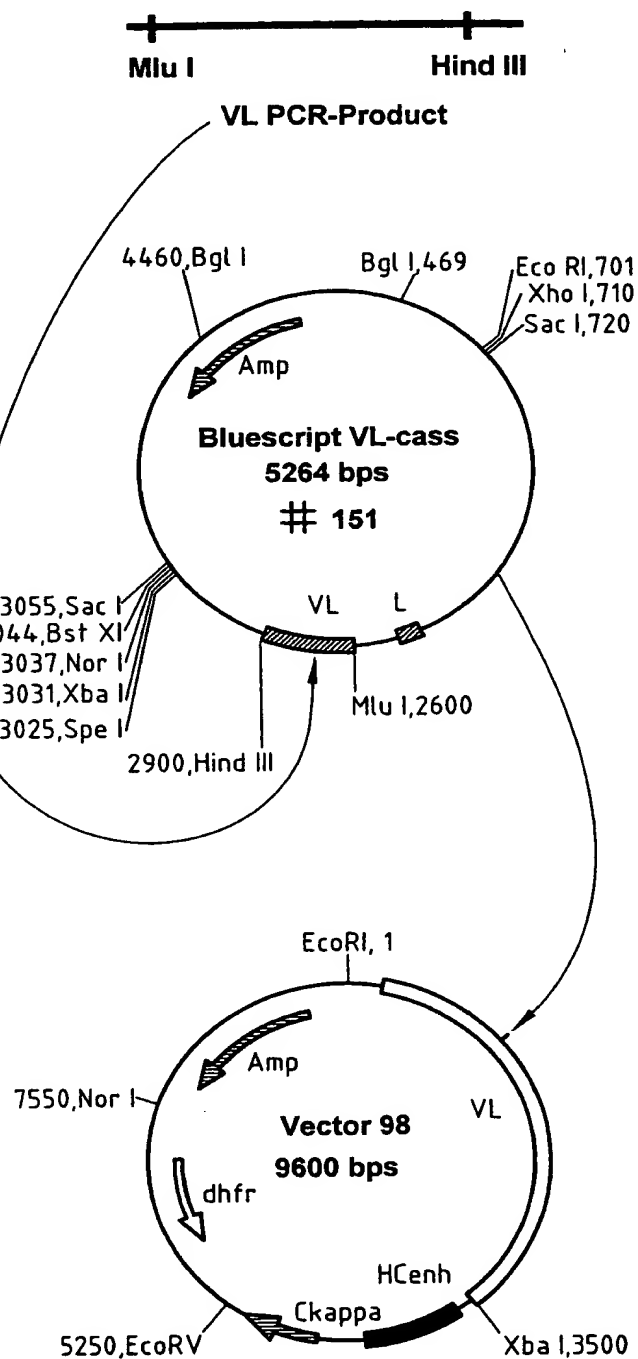


FIG. 19